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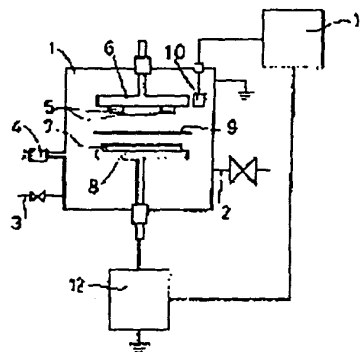
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(54) FILM FORMING VELOCITY CONTROLLING DEVICE FOR SPUTTERING EQUIPMENT

(57)Abstract:

PURPOSE: To accurately control the film forming velocity of a sputtering thin film by arranging an optical type film thickness gage in the vicinity of a base plate to be treated in a sputtering equipment and controlling the output of a sputter power source by the film thickness detection signal.

CONSTITUTION: A sputter electrode 8 with a target 7 for sputter fixed thereon is provided oppositely to a holder 6 fitted with a base plate 5 to be treated in a vacuum chamber 1 for sputtering. An optical type film thickness gage 10 is arranged near to the holder 6 for the base plate. Since a sputter film sticks the monitor glass of the film thickness gage 10 similarly to the surface of the base plate 5 to be treated during sputtering work, light is allowed to collide against this sputter film and both the transmitted light and reflected light are monitored. The thickness and refractive index of the sputter film are detected by an electric signal. The detection signal is inputted to a film thickness controller 11 and compared with the set value in this controller 11. The film forming velocity of the sputtering film on the base plate 5 is properly controlled by controlling the power of a sputter power source 12 by this difference.



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